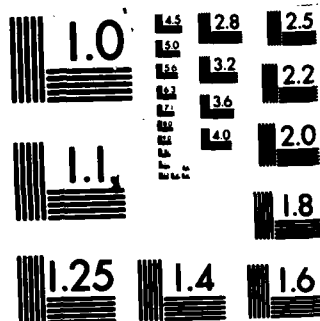


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Personnel Technology - Performance Appraisal, A Process Approach:
A Final Report

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Prepared for
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Office of Naval Research

Contract #N00014-82-K-0449
Janet L. Barnes-Farrell and Daniel R. Ilgen,
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Abstract

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This report briefly outlines research performed under a contract awarded for investigating processes affecting the accuracy of performance appraisals. A general overview of the research is provided, followed by a listing of major topic areas investigated and reference to the research reports that describe the research in detail. An Appendix to the report lists the titles of the technical reports, presentations at professional meetings, and theses or dissertations that resulted from the research.
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Personnel Technology - Performance Appraisal, A Process Approach
A Final Report

Performance appraisal systems play a central role in the effective functioning of any large organization. However, despite the importance and the increasing demand for effective performance appraisal systems, our ability to perfect these systems has been quite limited. For the most part, work on performance appraisal has focused on (1) the design of performance appraisal instruments and (2) the training of people to use the scales. In order to advance beyond our present state with regard to performance appraisal, we must resist the tendency, represented by these two approaches, to stress intervention over understanding. Instead, it is necessary to have a better understanding of the processes involved as one individual judges the performance of another.

The purpose of this research project was to adopt a process view of performance appraisal and then explore and test assumptions from this framework with empirical research. Originally, we intended to approach this goal through the development of a three-phase research program, which was to be conducted over a period of three years. During Phase I, task materials and measures necessary for assessing rater accuracy were to be developed. The purpose of Phase II was to explore those factors that influence the accuracy of performance appraisals. The third phase was intended to focus upon applications. However, it became necessary to terminate this contract after only one year. As a result, research described in this report focuses primarily on Phase I activities. The

activities planned for Phases II and III will be completed under separate contracts to Dr. Barnes-Farrell and to Dr. Ilgen. The research which will be conducted under those contracts represents the continuation of work begun during this project.

The primary focus of our work during Phase I was the development of task materials and measures necessary for assessing rater accuracy. Materials were developed for use in laboratory and procedures for use in field research settings respectively.

Laboratory materials. Our goal was to produce a set of videotaped samples of employee performance in which the true level of performance could be accurately estimated by expert raters. In addition, behaviorally oriented performance rating scales had to be developed to accompany the videotaped stimulus materials. These materials would provide use with a means of assessing the accuracy of performance ratings provided by evaluators under a variety of controlled laboratory conditions.

The development of laboratory materials took place in two major stages, each consisting of several tasks. The first step was to identify a job and to develop an instrument for evaluating performance on each of the important performance dimensions included in that job. The second stage was the production of videotaped samples of performance which provided behavioral examples of performance at low, moderate, and high levels of effectiveness for each performance dimension. Briefly, they can be summarized as follows.

A job type, "restaurant waiting" was identified as a

position for the development of a laboratory measure of rating accuracy. That job was selected, in part, because persons used later with the stimulus materials would have some familiarity with it, because relatively objective measures could be developed, and because we could gain access to a facility for creating videotaped episodes of performance. Students from the Department of Restaurant, Hotel, and Institutional Management worked with our research team to identify important dimensions of work performance and examples of effective and ineffective work performance. After being subjected to a retranslation procedure, scale values were estimated for these examples, and behaviorally anchored rating scales were constructed for each dimension.

Seven dimensions were selected for videotaping: Menu Familiarity, Knowledge of Beverage Service Procedures, Maintaining Performance Levels, Memory, Cooperation, Work Habits, and Dinner Bill Activities. For each of those dimensions, benchmarks with high, moderate, and low scale values were identified and brief scripts were prepared to represent them. Each script was performed and videotaped twice: once with a male actor playing the role of the focal employee, and once with a female playing that role. Thus a total of forty-two vignettes were produced as a result of this effort. The final step in this process, the verification of intended performance levels and final editing of the tapes will be completed under Contract #N00014-83-K-0757 (Dr. Barnes-Farrell, Principal Investigator).

Field materials. Our goal in the development of field measures was to develop and evaluate a set of procedures for assessing the relative accuracy of a) different rating sources,

and b) different individual raters in a field setting. In addition, we hoped to develop a more general measure of "rating skill" which would differentiate between accurate and inaccurate appraisers. The major activities involved in this project are summarized below.

The cooperation of university custodians was obtained, and the job of custodian became the focus of the development of field materials. As before, the first step was to identify the primary performance dimensions of the job. The researchers worked closely with small groups of custodians, who identified the following eight dimensions as important to work effectiveness: 1) Floors, 2) General Cleaning and Polishing, 3) Restrooms, 4) Classrooms, Offices and Laboratories, 5) Personal Safety, 6) Custodial Maintenance, 7) Security, and 8) People. Behavioral examples providing benchmarks for each dimension were generated, retranslated, and scaled to produce a behaviorally oriented performance rating instrument for the job of custodian.

Once the scales were developed, the custodians participating in the study were rated by five different sets of raters: supervisors, peers, self, area workers, and expert observers. The relative accuracy of these sources was examined, using four indices of accuracy. In addition, the relative difficulty in accurately appraising performance on each of the eight dimensions was examined.

Finally, several measures in addition to performance were obtained in order to explore some of the factors that may influence responses to performance appraisal scales. These

included measures of rater-ratee familiarity, perceived source accuracy, perceived patterns of past and future performance, and causal attributions about performance.

Final work on the field measure will be completed under Contract #N00014-K-83-0756 (Dr. Ilgen, Principal Investigator).

Other Research. In addition to the development of task materials and accuracy measures, several empirical studies examining various aspects of the appraisal process were conducted during year one of this contract. The effects of such variables as prototypicality of the ratee's behavior and purpose of the appraisal upon accuracy of evaluation were examined, and the process of occupational age-typing was studied (see I-1, I-3, III-1, III-2, IV-1, IV-2, IV-3 in the Appendix). This work is still underway, but preliminary findings suggest that the investigation of process variables will yield valuable information about the way the task of performance evaluation is carried out in organizations and the kinds of conditions which will facilitate accurate performance evaluation.

Appendix
Research Publications
on
ONR Contract #N00014-82-K-0449

I. Technical Reports

- | Number | Author(s), Title and Date |
|---------|---|
| 1. 83-1 | Barnes-Farrell, J. L. <u>Perceptions of age-typed occupations: A preliminary investigation.</u> April, 1983. |
| 2. 83-2 | Barnes-Farrell, J. L. & Weiss, H. M. <u>Effects of standard extremity on mixed standard scale performance ratings.</u> April, 1983. |
| 3. 83-3 | Couture, K. A. & Barnes-Farrell, J. L. <u>Effects of rating purpose and rater self-esteem on performance ratings.</u> April, 1983. |
| 4. 83-4 | Ilgen, D. R. & Favero, J. L. <u>Methodological contributions of person perception to performance appraisal.</u> April, 1983. |
| 5. 83-5 | Barnes-Farrell, J. L. & Ilgen, D. R. <u>Personnel technology - Performance appraisal, a process approach: A final report.</u> December, 1983. |

II. Books and Book Chapters

1. Ilgen, D. R. & Barnes-Farrell, J. L. Modules in management: Performance planning and evaluation. SRA Associates, in press.

III. Presentations

1. Barnes-Farrell, J. L. Age-typing of occupations. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL, May 1983.
2. Moore, C. F. & Ilgen, D. R. Goal-setting and feedback effects on proof-reading performance. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL, May 1983.

3. Ilgen, D. R. Performance appraisal and feedback: A workshop. Workshop presented at the Conference for Industrial/Organizational Psychology and Organizational Behavior Graduate Students, Chicago, IL, March 1983.
4. Couture, K. A. & Barnes-Farrell, J. L. Effects of rating purpose and rater self-esteem on performance ratings. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August 1982.
5. Ilgen, D. R. & Favero, J. L. Methodological contributions of person perception to performance appraisal. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August 1982.

IV. Dissertations/Theses

1. Couture, K. A. Contextual influences on performance ratings: The effect of purpose on rating accuracy. Unpublished master's thesis, Purdue University, 1982.
2. Favero, J. L. Effects of prototypicality and time on evaluation accuracy and ratee observation in a performance appraisal context. Unpublished master's thesis, Purdue University, 1983.
3. Nowicki, C. Effects of impression formation in the employment interview. Unpublished doctoral dissertation, Purdue University, 1983.

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